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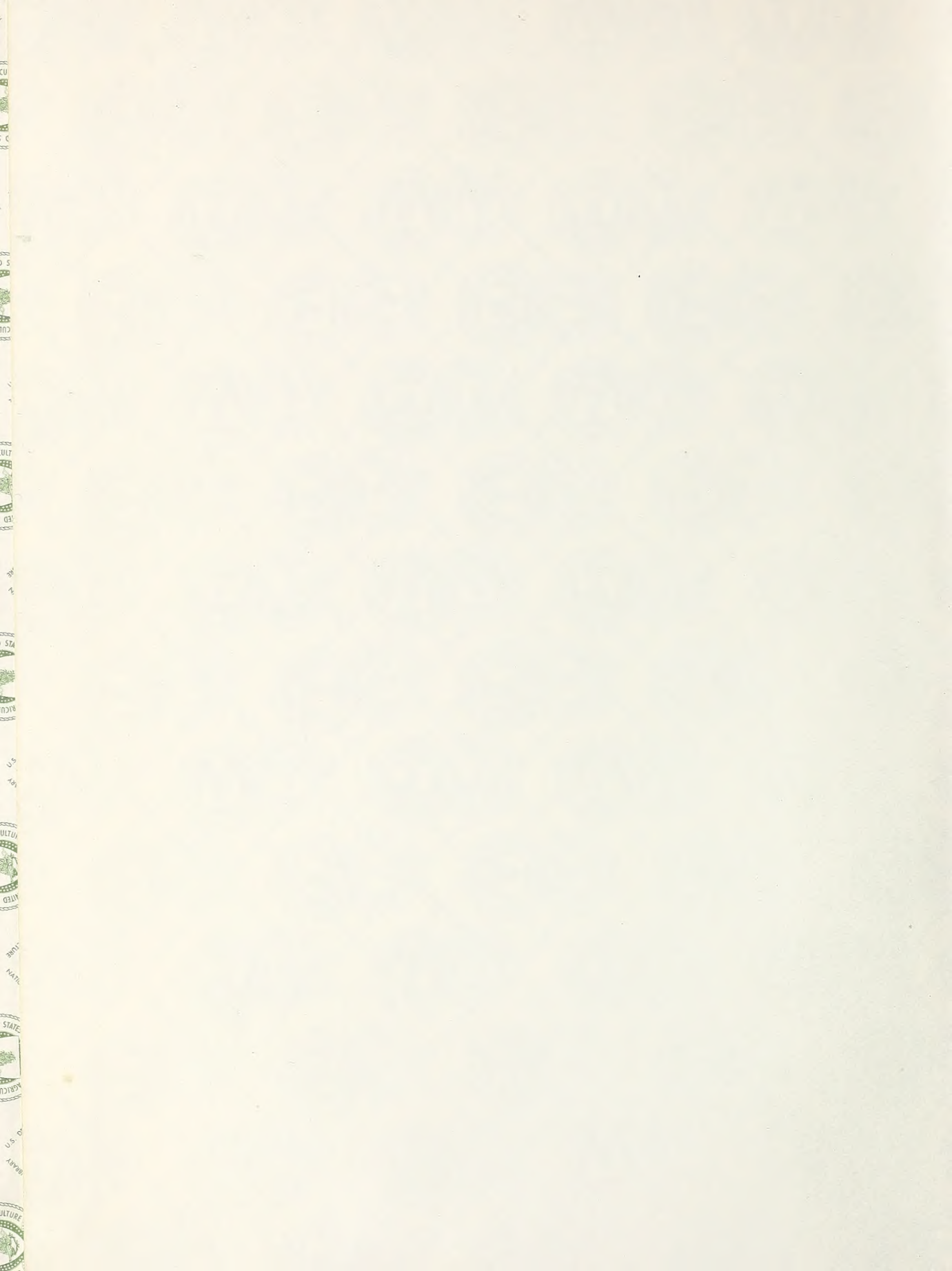
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VOL. 15 No. 1

January 1, 1965

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# *Cooperative* ECONOMIC INSECT REPORT

*Issued by*

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

# **AGRICULTURAL RESEARCH SERVICE**

## **PLANT PEST CONTROL DIVISION**

### **SURVEY AND DETECTION OPERATIONS**

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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## COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

THREE-CORNERED ALFALFA HOPPER populations continue to range medium to heavy in some alfalfa in Yuma, Maricopa and Pinal Counties, Arizona. (p. 3).

CABBAGE LOOPER rather heavy on collards in Lee County and other central counties in Alabama; some controls still necessary on vegetable crops in Maricopa County, Arizona. (p. 4).

As of December 11, 1964, a WEEVIL (Anthonomus sp.) infested 500 properties involving 32,912 acres of cotton in Yuma, Maricopa, Pinal, Pima, Santa Cruz and Cochise Counties, Arizona. (p. 4).

BOLL WEEVIL hibernation surveys in 5 Southern States show average counts of live weevils per acre exceeded those of 1963 in all comparable areas except North Delta area of Mississippi. (pp. 10-12).

DETECTION

A GRAPE LEAF SKELETONIZER (Harrisina metallica) reported for first time from New Mexico. (p. 3). A SCOLYTID (Hypothenemus pubescens) and a PIT SCALE (Asterolecanium miliaris robustum) were reported for the first time from Hawaii. (p. 9). New county records reported were a BERMUDA-GRASS MITE (Aceria neocynodonis) from Sacramento County, California, (p. 3); CHRYSANTHEMUM APHID (Macrosiphoniella sanborni) from Imperial County, California, (p. 5); an APHID (Lachnus salignus) from Yolo County, California, (p. 5); and an ERIOPHYID MITE (Paracalacarus podocarpi) from Orange County, Florida, (p. 6).

SPECIAL REPORTS

Status of the Screw-worm in the Southwest. (p. 8). No cases were reported in the Southwestern Eradication Area during the period December 20-26. Last reported infestation was in Atascosa County, Texas, on December 9.

Hawaiian Insect Notes. (p. 9).

Boll Weevil Hibernation Surveys in North and South Carolina, Alabama, Mississippi and Texas - Fall 1964. (pp. 10-12)

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Reports in this issue are for week ending December 25, unless otherwise indicated.

WEATHER OF THE WEEK ENDING DECEMBER 28

Heavy rains and melting mountain snow caused record to near record flooding in western Oregon and northern California, driving thousands of persons from their homes. New snow covered the northern Great Plains as mild weather continued over the East. A few severe thunderstorms and tornadoes struck the Deep South.

TEMPERATURE: Arctic air lay over the northern Great Plains on Monday, December 21; temperatures at Cut Bank, Montana, remained below zero throughout the day and climbed to only a few degrees above zero over parts of North Dakota and Minnesota. Sharp temperature contrasts existed across the Arctic front. Valentine, Nebraska, registered 68° on Wednesday afternoon when Pierre, South Dakota, reported only 20°. The temperatures tumbled quickly as the front pushed southward. The mercury had reached 82° at Concordia, Kansas, Wednesday afternoon but dropped to 25° Thursday morning. Strong chinook winds on the eastern slopes of the Rocky Mountains raised the temperatures to near record levels. Roswell, New Mexico, registered 80° on Wednesday afternoon. This was 2° warmer than Key West, Florida. The East continued warm through most of the week. Temperatures averaged below normal over northern Washington and over the northern Great Plains and above normal over most of the rest of the Nation.

PRECIPITATION: Heavy precipitation, mostly rain, fell over western and central Oregon and northern California where weekly totals at some stations were from one-third to one-half of the annual normals. A few stations in Oregon received more than 10 inches and some mountain locations in California received from 10 to 30 inches of rain during the week. These heavy rains and runoff from melting snow-pack induced by warm temperatures produced severe flooding and soil erosion in northern California and western Oregon. No rain or only light sprinkles fell from southern Nevada eastward across Arizona, New Mexico, and Texas and northward to southern Nebraska. Some heavy thundershowers occurred from southeastern Alabama to southern North Carolina. (Summary supplied by U.S. Weather Bureau).

## CEREAL AND FORAGE INSECTS

GREENBUG (Schizaphis graminum) - OKLAHOMA - Counts decreased 50 percent in Perkins area, Payne County; now average 5 per linear foot. Some dead aphids noted. No other species of grain aphid active in area. S. graminum averaged less than 1 per linear foot in Logan County. (Okla. Coop. Sur.). ARKANSAS - None found in northwest area. (Ark. Ins. Sur.).

A CORN LEAFHOPPER (Dalbulus maidis) - CALIFORNIA - Immatures and adults medium on corn in Selma, Fresno County. (Cal. Coop. Rpt., Dec. 18).

HESSIAN FLY (Phytophaga destructor) - NEBRASKA - Infestations noted as above average in Box Butte County. (Bergman).

A BERMUDA-GRASS MITE (Aceria neocynodonis) - CALIFORNIA - Medium on Bermuda grass locally in Sacramento, Sacramento County; new county record. (Cal. Coop. Rpt.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Populations continue medium to heavy in some alfalfa in Yuma, Maricopa and Pinal Counties. (Ariz. Coop. Sur.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Light to medium in scattered areas of Maricopa County alfalfa. (Ariz. Coop. Sur., Dec. 19). ARKANSAS - None noted in northwest area. (Ark. Ins. Sur.).

PEA APHID (Acyrtosiphon pisum) - ARKANSAS - Counts in legumes remain approximately 10-15 per square foot in northwest area. (Ark. Ins. Sur.).

WESTERN BROWN STINK BUG (Euschistus impictiventris) - ARIZONA - Populations persist in alfalfa in Yuma Valley of Yuma County; averaged 15 per 100 sweeps. (Ariz. Coop. Sur.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Adults averaged 25 per 100 sweeps in alfalfa in Maricopa and Pinal Counties. (Ariz. Coop. Sur., Dec. 19).

A WEEVIL (Hypera brunneipennis) - ARIZONA - Adults appearing in Yuma County; ranged 10-40 per 100 sweeps. (Ariz. Coop. Sur.).

## FRUIT INSECTS

PEACH TREE BORER (Sanninoidea exitiosa) - FLORIDA - Larvae severe on roots of plum in nursery at Macclenny, Baker County. (Collins, Dec. 15).

HICKORY SHUCKWORM (Laspeyresia caryana) - OKLAHOMA - Light to moderate numbers noted in pecan shucks in Stillwater area, Payne County. (Okla. Coop. Sur.).

A LEAF BLOTCH MINER (Lithocolletis sp.) - CALIFORNIA - Medium on apple tree nursery stock in Placerville, El Dorado County; predators active and feeding on larvae. (Cal. Coop. Rpt., Dec. 18).

A GRAPE LEAF SKELETONIZER (Harrisina metallica) - NEW MEXICO - Adult collected August 15, 1964, in backyard in Albuquerque, Bernalillo County, identified as this species. This is first time determination has been made. Det. by R. W. Hodges. This is a new State record. (N.M. Coop. Rpt.).

A LEAFHOPPER (Draeculacephala minerva) - CALIFORNIA - Sharp increase noted in alfalfa in some locations in Fresno County. This species vector of Pierce's disease of grape. (Cal. Coop. Rpt., Dec. 18).

SAN JOSE SCALE (Aspidiotus perniciosus) - FLORIDA - All stages severe on stem of plum in nursery at Macclenny, Baker County. (Collins, Dec. 15).

OLIVE SCALE (Parlatoria oleae) - CALIFORNIA - Medium on peach nursery stock in Menlo Park, San Mateo County. (Cal. Coop. Rpt., Dec. 18).

AN ARMORED SCALE (Aspidiotus spinosus) - FLORIDA - All stages light on stems, blooms and leaves of loquat at nursery in Marathon, Monroe County. (Dowling, Knowles, Dec. 16).

CITRUS MEALYBUG (Pseudococcus citri) - CALIFORNIA - Heavy on mango trees locally in San Diego, San Diego County. (Cal. Coop. Rpt.).

PACIFIC FLATHEADED BORER (Chrysobothris mali) - CALIFORNIA - Larvae medium on apple nursery stock locally in Santa Cruz, Santa Cruz County.. (Cal. Coop. Rpt., Dec. 18).

#### TRUCK CROP INSECTS

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Decreased on vegetable crops in Maricopa County during week ending December 19, with fewer controls applied. Populations currently decreasing in Yuma County and remain unchanged in Maricopa County. Some controls still necessary in Maricopa County. (Ariz. Coop. Sur.).  
ALABAMA - Rather heavy on collards in Lee County and other central counties. (Barwood).

TOMATO FRUITWORM (Heliothis zea) - ARIZONA - Continues a problem on late planted lettuce in Maricopa County. Controls necessary to protect maturing heads. (Ariz. Coop. Sur.).

A LEAF ROLLER MOTH (Ptycholoma peritana) - CALIFORNIA - Larvae caused light damage to strawberry leaves in Selma and medium damage in Clovis, Fresno County. (Cal. Coop. Rpt., Dec. 18).

GREEN PEACH APHID (Myzus persicae) - ARIZONA - Increasing on sugar beets in Maricopa County; averaged 145 per 100 sweeps. (Ariz. Coop. Sur., Dec. 19).

BEEF LEAFHOPPER (Circulifer tenellus) - ARIZONA - Light on sugar beets in Maricopa County. (Ariz. Coop. Sur., Dec. 19).

A VINEGAR FLY (Drosophila sp.) - CALIFORNIA - Larval populations medium in flowers and ovary of squash fruit in Chula Vista, San Diego County. (Cal. Coop. Rpt.).

#### COTTON INSECTS

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Surveys in cotton fields and gin trash examinations revealed 150 infested properties in Pinal, Pima and Maricopa Counties; 11,509 acres involved. Graham and Cochise Counties considered 100 percent infested. (Ariz. Coop. Sur., Dec. 19).

A WEEVIL (Anthonomus sp.) - ARIZONA - Results of surveys show 500 properties infested involving 32,912 acres in Yuma, Maricopa, Pinal, Pima, Santa Cruz and Cochise Counties. (Ariz. Coop. Sur., Dec. 11).

#### FOREST, ORNAMENTAL AND SHADE TREE INSECTS

PINE BARK APHID (Pineus strobi) - MARYLAND - Conspicuous on several large white pines at Carrollton, Prince Georges County. (U. Md., Ent. Dept.).

A PINE APHID (Essigella californica) - CALIFORNIA - Heavy on Monterey pine (Pinus radiata) in Riverside, Riverside County. (Cal. Coop. Rpt.).

A BARK BEETLE (Phloeosinus cristatus) - CALIFORNIA - Heavy on Cupressus macrocarpa in Woodside, San Mateo County. (Cal. Coop. Rpt., Dec. 18).

TORTRICID MOTHS - KANSAS - A webworm, mentioned in CEIR 14(28):773, has been determined as Choristoneura houstonana. Larvae were collected near Zurich, Rooks County, on June 15 or 16 by R. Beams, on eastern redcedar (Juniperus virginiana). E. A. Heinrichs collected additional larvae which he reared to adults and these were determined by R. W. Hodges as C. houstonana. Although a collection from Barton County was made about June 21, 1963, it was uncovered only recently. (Thompson). These are the first reports from Kansas even though the species apparently has been present for 2-3 years. (PPC). CALIFORNIA - Clepsis fucana medium on rhododendron nursery stock in Albion, Mendocino County. Larvae, pupae and adults present. (Cal. Coop. Rpt.).

AMERICAN PLUM BORER (Euzophera semifuneralis) - NEW MEXICO - Larvae collected under bark of pecan at Carlsbad, Eddy County. Det. by D. M. Weisman. Collected from trunks of catalpa trees at Roswell, Chaves County. (N.M. Coop. Rpt., Dec. 22).

A NOCTUID MOTH (Xanthopastis timais) - FLORIDA - Larvae ranged moderate to severe on leaves and bulbs of Amaryllis sp. in nursery at South Daytona, Volusia County. (Pott, Dec. 15).

A JUNIPER TWIG GIRDLER (Periploca nigra) - CALIFORNIA - Pupae and adults medium on juniper nursery stock in El Cajon, San Diego County. Damage evident. (Cal. Coop. Rpt.).

A PYRALID MOTH (Herculia phaezalis) - CALIFORNIA - Larvae heavy on Italian cypress in Port Hueneme, Ventura County. (Cal. Coop. Rpt.).

A WEEVIL (Brachyrhinus cribricollis) - CALIFORNIA - Heavy on privet plants locally in Riverside, Riverside County. (Cal. Coop. Rpt., Dec. 18).

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni) - CALIFORNIA - Light on chrysanthemums in Brawley, Imperial County. This is a new county record. (Cal. Coop. Rpt., Dec. 18).

AN APHID (Lachnus salignus) - CALIFORNIA - Nymphs and adults infesting willow trees locally in Woodland, Yolo County. This is a new county record. (Cal. Coop. Rpt., Dec. 18).

OLEANDER APHID (Aphis nerii) - FLORIDA - All stages moderate on stem of wax plant (Hoya carnosa) at Winter Garden, Orange County. (Griffith, Dec. 18). ARIZONA - Heavy on oleander in Yuma and Maricopa Counties. (Ariz. Coop. Sur.).

RUSTY PLUM APHID (Hysteroneura setariae) - ARIZONA - Heavy on ivy and other ornamentals in Phoenix area, Maricopa County. (Ariz. Coop. Sur., Dec. 19).

TURNIP APHID (Hyadaphis pseudobrassicae) - CALIFORNIA - Adults and nymphs heavy on stock plants in Fullerton, Orange County. (Cal. Coop. Rpt., Dec. 18).

A MINING SCALE (Pseudaonidia clavigera) - FLORIDA - Adults moderate on Camellia japonica in nursery at Sulphur Springs, Hillsborough County. (Simmons, Dec. 15).

COCCIDS - FLORIDA - Phenacaspis cockerelli severe on leaves of magnolia at Oviedo, Seminole County, (McLeod, Dec. 16); adults moderate on leaves of Bishopwood (Bischofia javanica) in nursery at Miami, Dade County, (Brown, Dec. 18). All stages of Pseudoparlatoria parlatorioides severe on leaves of Tibouchina sp. at Cypress Gardens, Polk County. (Burnett, Denmark, Norton, Seymour, Dec. 17). Saissetia hemisphaerica (hemispherical scale) adults severe on stem and leaves of Aphelandra sp. in nursery at Apopka, Orange County. (Musgrove, Dec. 14). Diaspis carueli (juniper scale) severe on Italian cypress (Cupressus semipervirens) at nursery in Miami. (Brown, McFarlin, Dec. 17). All stages of Aspidiotus perniciosus (San Jose scale) light on stem of Pyracantha sp. at nursery in Groveland, Lake County. (Henderson, Dec. 16). All stages of Conchaspis angraeci light on leaves of yellow hibiscus at nursery in Stock Island, Monroe County. (Dowling, Knowles, Dec. 16). ALABAMA - Two large specimen plantings of 5-year-old

Japanese magnolia recently removed from landscape of large hospital in Lee County; magnolias being killed by Toumeyella turgida. (McQueen). ARIZONA - Saissetia oleae (black scale) infested oleander on some properties in Yuma County; treatments necessary. (Ariz. Coop. Sur.). CALIFORNIA - Adults of Aonidiella citrina (yellow scale) and Amphorophora sp. (an aphid) heavy on strawberry-trees locally in Sacramento, Sacramento County. Parlatoria oleae (olive scale) and Aspidiotus perniciosus heavy on olive and Christmasberry in Williams, Colusa County. Lepidosaphes ulmi (oystershell scale) and Aspidiotus lataniae adults heavy on birch nursery stock in San Mateo, San Mateo County. (Cal. Coop. Rpt.).

BOXWOOD PSYLLID (Psylla buxi) - MARYLAND - Infested boxwood on property at Mechanicsville, St. Marys County. (U. Md., Ent. Dept.).

CUBAN-LAUREL THRIPS (Gynaikothrips ficorum) - CALIFORNIA - Medium populations damaging "rubber-trees" in Anaheim, Orange County. Adults also present. (Cal. Coop. Rpt.).

WHITEFLIES - ALABAMA - Heavy infestations of nymphs and inactive stages easily found on gardenia, ligustrum and many other broadleaf shrubs in many local areas over State. (McQueen).

ERIOPHYID MITES - CALIFORNIA - Trisetacus quadrisetus nymphs and adults present in medium numbers on juniper nursery stock in Anaheim, Orange County. (Cal. Coop. Rpt.). FLORIDA - Adults of Paracalacarus podocarpus scattered on leaves of Podocarpus sp. at Apopka, Orange County. (VanPelt, Dec. 15). This is a new county record. (PPC).

A SLUG (Ariolimax columbianus) - CALIFORNIA - Heavy in yard in Santa Rosa, Sonoma County. (Cal. Coop. Rpt.).

#### INSECTS AFFECTING MAN AND ANIMALS

COMMON CATTLE GRUB (Hypoderma lineatum) - OKLAHOMA - Counts per head in Payne County averaged 20 on yearling steers, 6 on beef cows and less than 1 on dairy cows; maximum count on dairy cows averaged 4 per head. Counts in Noble County averaged 25 per head on yearling steers and 3 per head on beef cows. (Okla. Coop. Sur.).

CATTLE GRUBS (Hypoderma spp.) - UTAH - Controls applied to 2,000 beef animals in Tooele County and 300 head in Duchesne County. (Biggs, Smith, Knowlton).

FACE FLY (Musca autumnalis) - NEBRASKA - Adults overwintering in same room on ninth floor of hotel in Lincoln, Lancaster County, for third successive year. Adults also overwintering in church in Osceola, Polk County; church infested 2 years ago. Flies annoying on Sunday mornings when room conditions are warmer. (Bergman).

CATTLE LICE - UTAH - Controls applied to 4,200 head of cattle in Tooele County and to 525 head in Duchesne County. (Biggs, Smith, Knowlton). OKLAHOMA - Light numbers of Haematopinus eurysternus (short-nosed cattle louse) appearing on cattle in Payne County. (Okla. Coop. Sur.). MICHIGAN - Bovicola bovis (cattle biting louse) adults collected from dairy herd in Ingham County on December 21. (Wells). NEBRASKA - Infestations of unspecified species increasing in feedlots. Hair from rubbing and scratching being deposited on fences. (Bergman).

CHICKEN MITE (Dermanyssus gallinae) - OKLAHOMA - Becoming damaging to parakeets in southern portion of State. (Okla. Coop. Sur.).

## HOUSEHOLD AND STRUCTURAL INSECTS

A BARK BEETLE (Pseudopityophthorus pubipennis) - CALIFORNIA - Adults heavy and emerging from lumber in new house in Paradise, Butte County. (Cal. Coop. Rpt., Dec. 18).

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - ALABAMA - Reported damaging house in Geneva County. (Reynolds).

INDIAN-MEAL MOTH (Plodia interpunctella) - OKLAHOMA - Several infestations found in Payne County homes. (Okla. Coop. Sur.).

A MOTH FLY (Telmatoscopus albipunctatus) - MARYLAND - Adults appeared in home at Carrollton, Prince Georges County. (U. Md., Ent. Dept.).

## STORED-PRODUCT INSECTS

CARROT RUST FLY (Psila rosae) - MICHIGAN - Larvae reported active in carrots in storage in Lapeer County. (Janes).

KHAPRA BEETLE (Trogoderma granarium) - ARIZONA - Infestation found in commerical feedlot in Yuma County. This is second infestation on this property this year. (Ariz. Coop. Sur.).

## MISCELLANEOUS INSECTS

FULLER ROSE BEETLE (Pantomorus godmani) - MINNESOTA - Unusual find of 2 adults reported in greenhouse at University of Minnesota Farm Campus. (Minn. Ins. Rpt.).

A WEEVIL (Conotrachelus seniculus) - NEW MEXICO - Specimens collected in cotton gin trash in southern Dona Ana County; det. by R. E. Warner. (N.M. Coop. Rpt., Dec. 22).

PUMPKIN CATERPILLAR (Diaphania indica) - FLORIDA - Adults taken in Steiner traps at Avon Park, Highlands County, (Dec. 10), and at St. Petersburg, Pinellas County, (Dec. 18). (Shively).

A LEAF ROLLER MOTH (Synnoma lynosyrana) - NEW MEXICO - Larvae defoliating snake-weed in Socorro County. Det. by D. M. Weisman. (N.M. Coop. Rpt., Dec. 22).

A TERMITE (Prorhinotermes simplex) - FLORIDA - Adults (winged reproductives) swarmed at Fisher Island, Miami Beach, Dade County, during December. Det. by L. A. Hetrick. (Porter).

## LIGHT TRAP COLLECTIONS

SOUTH CAROLINA - Charleston (Dec. 14-20) (precipitation 0.16 inches) (temperature range (°F.) 26-66). Pseudaletia unipuncta (armyworm) 0; Spodoptera frugiperda (fall armyworm) 0; Prodenia ornithogalli (yellow-striped armyworm) 0; Agrotis ipsilon (black cutworm) 1; Feltia subterranea (granulate cutworm) 10; Peridroma saucia (variegated cutworm) 0; Heliothis zea (corn earworm) 0; H. virescens (tobacco budworm) 0; Protoparce sexta (tobacco hornworm) 0; P. quadrimaculata (tomato hornworm) 0; Estigmene acrea (salt-marsh caterpillar) 0; Trichoplusia ni (cabbage looper) 0.

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

No screw-worm cases were reported in the Southwestern Eradication Area during the period December 20-26. The last reported infestation was in Atascosa County, TEXAS, on December 9. No cases have been reported in the United States since that date. During this period, the Republic of Mexico reported 61 infestations: Durango 3, Chihuahua 15, Tamaulipas 1, Sonora 38, Coahuila 2, Nuevo Leon 1 and San Luis Potosi 1. Sterile screw-worm flies released: Texas 18,710,250, New Mexico 1,920,000, Arizona 4,480,000 and Mexico 55,212,000.

| Year                                                                                                                                                | Positive Cases |            | Negative Cases |            | Ratio of Positive Cases to 100 Cases Negative |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|----------------|------------|-----------------------------------------------|------------|
|                                                                                                                                                     | Current        | Cumulative | Current        | Cumulative | Current                                       | Cumulative |
| Table 1. Comparison of specimens reported during corresponding weeks in 1962 and 1963 in Southwestern Eradication Area.                             |                |            |                |            |                                               |            |
| 1962                                                                                                                                                | 163            | 51,068     | 26             | 3,148      | 626.92                                        | 1,622.23   |
| 1963                                                                                                                                                | 0              | 6,350      | 5              | 7,324      | 0.00                                          | 86.70      |
| 1964                                                                                                                                                | 0              | 238        | 18             | 6,192      | 0.00                                          | 3.84       |
| Table 2. Comparison of specimens reported during corresponding weeks and in a corresponding area in 1963 in the United States-Mexico Barrier Zone.* |                |            |                |            |                                               |            |
| 1963                                                                                                                                                | 5              | 5,982      | 3              | 1,424      | 166.66                                        | 420.08     |
| 1964                                                                                                                                                | 57             | 4,499      | 15             | 2,060      | 380.00                                        | 218.39     |
| Table 2A. Mexican portion of Barrier Zone only.                                                                                                     |                |            |                |            |                                               |            |
| 1963                                                                                                                                                | 5              | 2,096      | 3              | 246        | 166.66                                        | 852.03     |
| 1964                                                                                                                                                | 57             | 4,254      | 11             | 928        | 518.18                                        | 458.40     |

\* Barrier Zone - Area in which screw-worm eradication operations are being carried out in an effort to prevent establishment of self-sustaining screw-worm population in the United States. (Anim. Dis. Erad. Div.).

# HAWAIIAN INSECT NOTES

The following notes on Hawaii insect conditions were presented at the 708th meeting of the Hawaiian Entomological Society held on December 14, 1964.

A SCOLYTID (Hypothenemus pubescens Hopkins) was found in Bermuda grass (Cynodon dactylon) stalks at Keawekapu, Maui, on November 17, by N. Miyahira. It was also collected in C. maritimus on the outskirts of Lahaina, December 2 and in C. dactylon at County Beach Park, Molokai, December 3 and at Honolulu on December 7. This is a new record for the State. The species was determined by Dr. Stephen Wood. (C. J. Davis).

The NOCTUIDS (Catabena esula Druce and Hypena strigata F.) introduced from California and East Africa respectively, had a population explosion between Kanaio and Alena on Maui during November. As a result, about 10,000 acres of lantana were denuded. This is the most widespread defoliation of lantana on Maui since 1959. Although a TINGID (Teleonemia scrupulosa Stål was present, its importance could not be assessed. (C. J. Davis).

A BILLBUG (Sphenophorus venatus vestitus (Chittenden)) was found on December 9 among several hundred specimens of NEW GUINEA SUGARCANE WEEVIL (Rhabdoscelus obscurus (Boisduval)) sent from Hilo to Honolulu for experimental purposes. Both species had been trapped together in a pile of split pieces of sugarcane exposed 2 or 3 days on the edge of a cane field. One specimen of S. venatus vestitus had been observed under similar circumstances on October 12, constituting the first record of this species on the island of Hawaii. (F. A. Bianchi).

AN ANTHOCORID BUG (Montandoniella moraguesi Puton) has spread to the Diamond Head area of Honolulu. On at least 1 Ficus retusa, the population of CUBAN-LAUREL THRIPS (Gynaikothrips ficorum) appeared to be greatly reduced because of the predation of M. moraguesi. (F. A. Bianchi).

Three larvae of a MOSQUITO (Toxorhynchites amboinensis (Doleschall)) were collected by J. Duarte on October 21, 1964, in an aircraft spare fuel tank in Halawa Valley, Molokai. Although periodic releases of this species have been made in Hawaii from 1950-1957, it was apparently misidentified as T. splendens (Wiedemann), according to Dr. John N. Belkin. This is a new island record. T. brevipalpis (Theobald), also released from 1950-1957, was found by J. Duarte at Hana, Maui, September 10 and 11, 1964. He collected 5 pupae from which adults were reared. Maui is a new island record for this species. (G. Komatsu).

Large numbers of CONVERGENT LADY BEETLE (Hippodamia convergens Guérin-Ménéville) were found at elevation of 13,612 feet on Mauna Kea, Hawaii, by E. Yoshioka, September 25, 1964. This is the second recovery for this species on the island of Hawaii. Previously, it was recovered only on Maui when J. Beardsley collected it on Haleakala Crater, July 28, 1964. (M. Chong).

A PIT SCALE (Asterolecanium miliaris robustum Green) a new record for the State, was collected on bamboo foliage along Kokee Road, Kauai, November 4, 1960, and in Honolulu, April 11, 1963. Det. by L. M. Russell. (J. W. Beardsley).

Boll Weevil Hibernation Surveys in North and South Carolina, Alabama,  
Mississippi and Texas - Fall 1964

The fall collections of surface ground (woods) trash samples (two square yards per sample) have been completed in 5 Southern States by State and Federal agencies to determine the number of boll weevil (Anthonomus grandis) adults that went into hibernation. A total of 3 samples was collected at each location in the States included. In North and South Carolina, 30 locations were sampled, with the number of counties per area from which samples were taken varying from 3 to 4. In Alabama, the 1964 collections represent the first hibernation survey conducted in that State in recent years. Three samples were taken from each of 10 farms in Morgan (north), 10 farms in Henry (southeast), 4 farms in Dallas (central) and 4 farms in Tuscaloosa (west) Counties. The 4 counties represent a wide variation of climatic conditions within the State. A total of 84 samples was taken. In Mississippi, 90 samples were taken with either 7 or 8 locations being sampled in the 4 areas. In Texas, 75 samples were taken, with either 6 or 7 locations being sampled in each of 4 counties.

Average counts (live weevils per acre) exceeded those of 1963 in all comparable areas except the North Delta area of Mississippi. In this area, the number of weevils per acre was 3,546 compared with 5,132 in 1963.

In Florence County, South Carolina, the number of weevils per acre (17,808) is the highest on record and is 2.5 times the average for the 22 years such examinations have been made. This is the fifth consecutive year in which over 10,000 weevils per acre have been found in fall examinations in this county.

In Alabama, there have been very high weevil counts in all parts of the State for several years until the spring and summer of 1963; however, no hibernation survival counts are available during recent years for comparison.

In Mississippi, the State average was 4,545 weevils per acre found in ground trash examinations, as compared with 3,010 in 1963, 6,213 in 1962, 8,403 in 1961, 14,502 in 1960 and 5,127 in 1959.

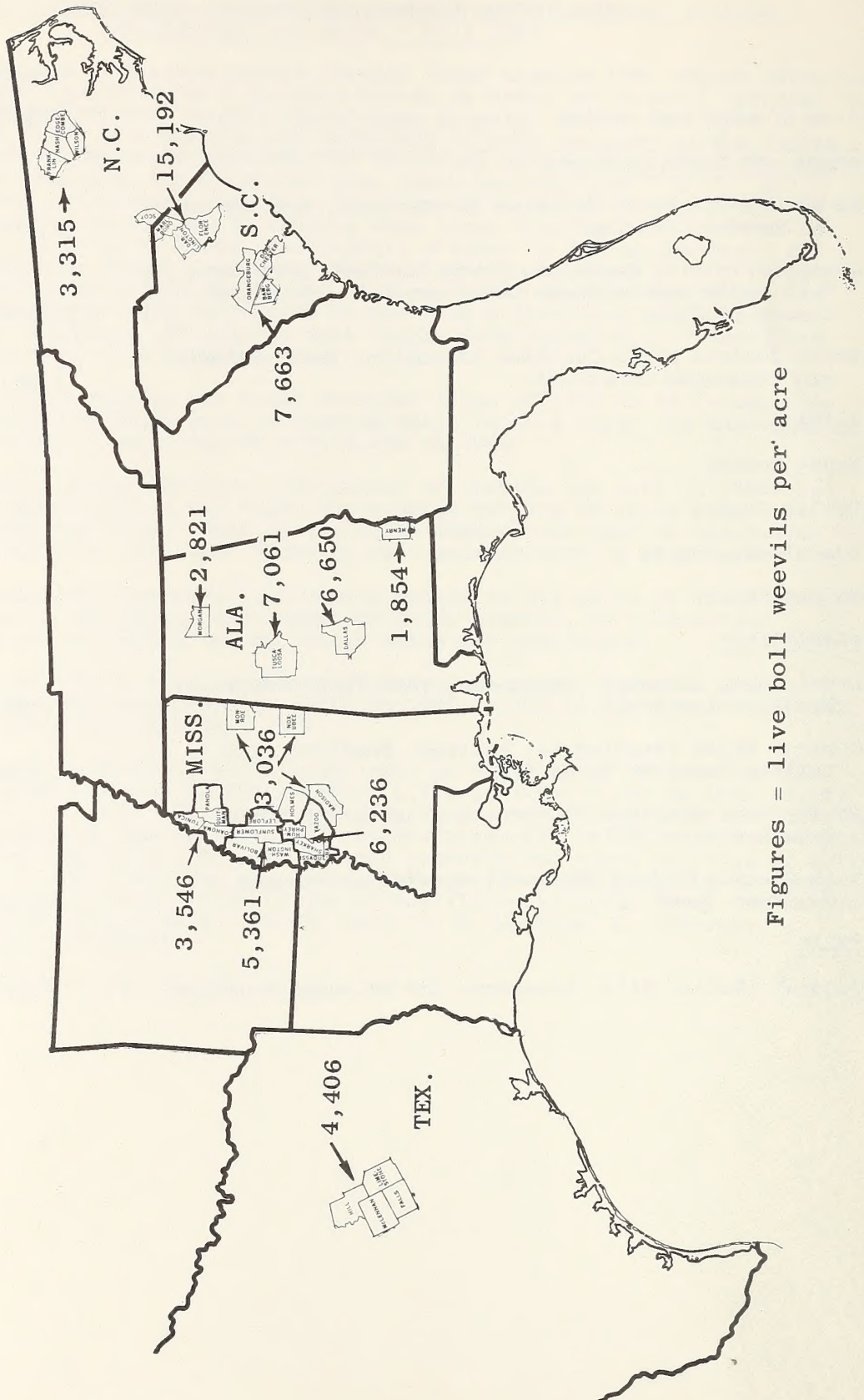
The area average of 4,406 boll weevils per acre in the fall of 1964 in central Texas compares with averages of 517 in 1963, 1,781 in 1962, 4,114 in 1961, 4,501 in 1960 and 6,631 in 1959. The sharp increase in numbers of boll weevils entering hibernation quarters in the fall of 1964 was due primarily to late stalk destruction and farm cleanup. Rains in September caused regrowth and heavy fruiting of cotton plants and many growers over the area left stalks until after frost in the hope of making a top crop. Heavy infestations of weevils built up in these fields and moved into hibernation quarters. (H. M. Taft, A. R. Hopkins, F. McQueen, T. R. Pfrimmer, C. B. Cowan).

See Table and Map on following two pages.

BOLL WEEVIL HIBERNATION SURVEYS - FALL 1964

| Area (County and State)                                                                                                    | Number of Weevils<br>Per Acre |        |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------|
|                                                                                                                            | 1963                          | 1964   |
| <u>NORTH AND SOUTH CAROLINA</u>                                                                                            |                               |        |
| South Central South Carolina (Orangeburg, Bamberg and<br>Dorchester Counties).                                             | 6,319                         | 7,663  |
| Coastal Plain of South and North Carolina (Florence,<br>Darlington and Marlboro Counties, S.C.; Scotland<br>County, N.C.). | 10,002                        | 15,192 |
| North Central North Carolina (Franklin, Nash, Wilson<br>and Edgecombe Counties).                                           | 1,263                         | 3,315  |
| <u>ALABAMA</u>                                                                                                             |                               |        |
| Henry County                                                                                                               | ---                           | 2,821  |
| Dallas County                                                                                                              | ---                           | 6,650  |
| Tuscaloosa County                                                                                                          | ---                           | 7,061  |
| Morgan County                                                                                                              | ---                           | 1,854  |
| <u>MISSISSIPPI</u>                                                                                                         |                               |        |
| Lower Delta (Sharkey, Issaquena, Yazoo and Humphreys<br>Counties (area 1)).                                                | 2,728                         | 6,236  |
| Central Delta (Washington, Bolivar, Sunflower and<br>Leflore Counties (area 2)).                                           | 1,670                         | 5,361  |
| North Delta (Coahoma, Tunica, Quitman and Panola<br>Counties (area 3)).                                                    | 5,132                         | 3,546  |
| Hill Section (Holmes, Madison, Noxubee and Monroe<br>Counties (area 4)).                                                   | 2,510                         | 3,036  |
| <u>TEXAS</u>                                                                                                               |                               |        |
| Central (Falls, Hill, Limestone and McLennan Counties).                                                                    | 517                           | 4,406  |

BOLL WEEVIL HIBERNATION SURVEYS - FALL 1964



Figures = live boll weevils per acre



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